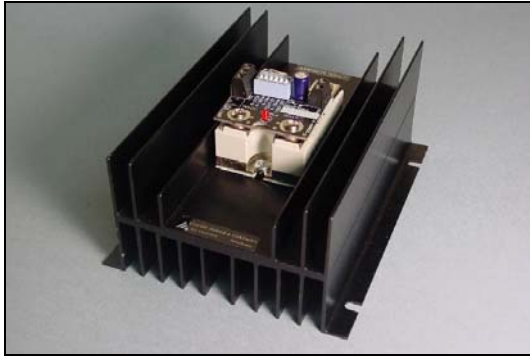


**"COOL ONE" PANEL MOUNT Phase Angle SCR Power Controller w/ Voltage Limit Option**



Dimensions: 6.0" x 4.75" x 3.0"

Anacon's "Cool One" heat sink design is by far one of the most unique ideas to come along in quite some time. Read about its amazing features and how Anacon can help with your design regardless of whose Solid State Relays you're using. "Cool One" works better!

**Standard "COOL ONE" Features:**

- Current Ratings from 0.1A to 50A
- Output voltages from 24Vac to 660Vac
- Standard **LED** Status Indicator
- UL/cUL Recognized TUV Approved & CE Compliant Version
- Operates from 47-63Hz
- **Input Options:** 0-10V, 0-5V, 2-10V, 1-5V, 4-20Ma, 0-20Ma, Potentiometer
- Built in Transient Protection
- Phase Angle Linearity Proportional to Input
- Controller Card requires 24V AC for operation 3VA min.
- **Voltage Limit Option is a compensation feature that limits voltage delivered to load. Once set, voltage remains fixed even if line voltage fluctuates.**
- 40A & 50A models Standard. Higher & Lower current versions available from 10A to 100A
- Includes Control Module, Solid State Relay & Black Anodized "Cool One" Panel Mount Heat Sink.
- For Safety & Noise Immunity Compliance information, see page \_\_\_\_.

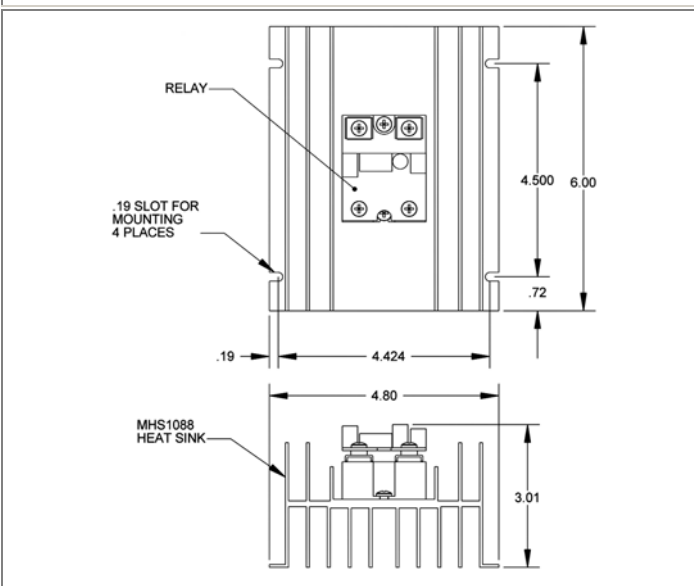
**SPECIFICATIONS**

PART NUMBER	INPUT RANGE	ASSEMBLY LOAD CURRENT (AMPS AC)	LINE VOLTAGE	PEAK VOLTAGE	RELAY RATING
APCSCR40LL-VLP	0-10Vdc, 0-5Vdc, 2-10Vdc, 1-5Vdc, 4-20Ma, 0-20Ma, Potentiometer	.1A-40A Max @ 40 Degrees C Ambient	24-280Vac	600V Peak	50A
APCSCR40HL-VLP	0-10Vdc, 0-5Vdc, 2-10Vdc, 1-5Vdc, 4-20Ma, 0-20Ma, Potentiometer	.1A-40A Max @ 40 Degrees C Ambient	48-660Vac	1200V Peak	50A
APCSCR50LL-VLP	0-10Vdc, 0-5Vdc, 2-10Vdc, 1-5Vdc, 4-20Ma, 0-20Ma, Potentiometer	.1A-50A Max @ 40 Degrees C Ambient	24-280Vac	600V Peak	75A
APCSCR50HL-VLP	0-10Vdc, 0-5Vdc, 2-10Vdc, 1-5Vdc, 4-20Ma, 0-20Ma, Potentiometer	.1A-50A Max @ 40 Degrees C Ambient	48-660Vac	1200V Peak	75A

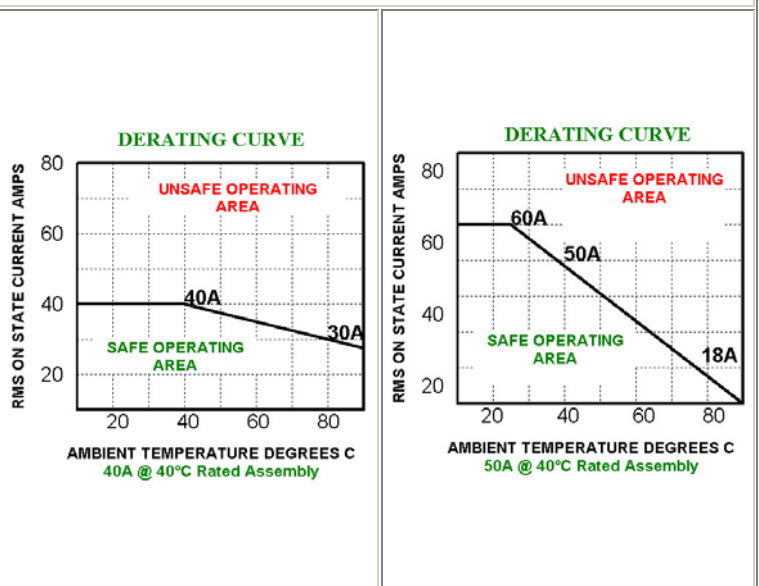
**Notes:**

- Ratings based upon 100% duty cycle for 20 minutes or 80% duty cycle continuous.
- Ratings based upon relays being mounted either individually or side by side with zero spacing.
- Cool One's unique construction allows better performance than conventional heat sink designs even when mounted side by side.

**MECHANICAL DRAWING**



**THERMAL CURVES**



### Voltage Limit (VL) Option Application Information

The APCSCR series are phase angle SCR Power Controllers. The switch selectable control ranges for the Voltage Limit version are: 0-10V, 0-5V, 2-10V, 1-5V, 4-20Ma, 0-20Ma, and manually using a potentiometer.

The power delivered to the load is proportional to the command signal input. The **Voltage Limit (VL)** feature is used in conjunction with the line voltage compensation feature to limit the actual voltage delivered to the load. The voltage limit is adjustable via a potentiometer located just below the input terminal block. For this feature to work correctly, the line voltage compensation must be turned on and the power transformer for the APCSCR must be connected to the same mains as the load is connected to. (See Figure below)

See APCSCR Operation Manual for adjustment information.

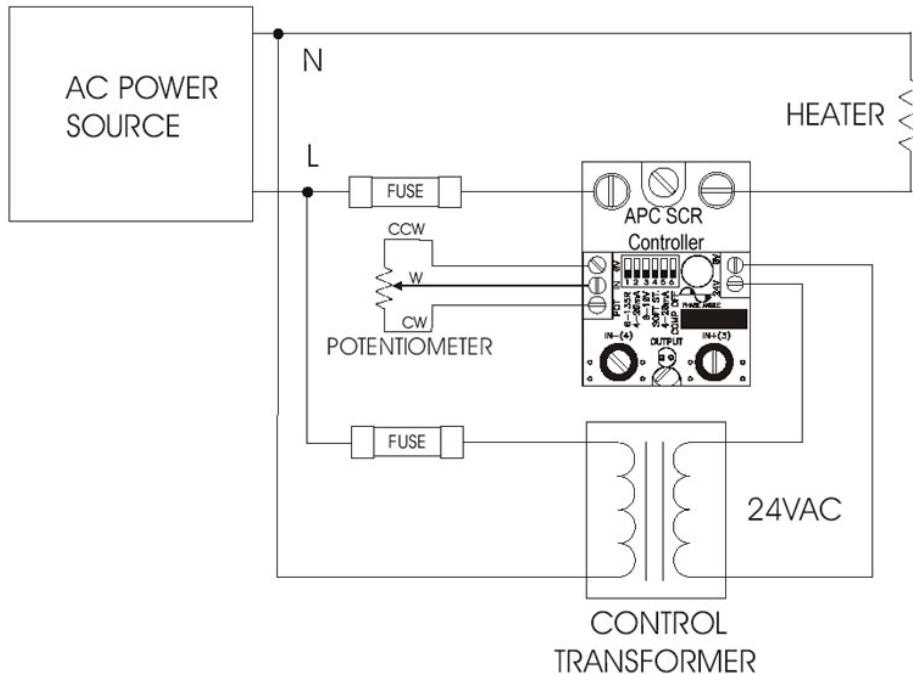
A line to 24Vac transformer supplies power and phase information to the controller card. The transformer is connected across the AC power source as noted below. There is a feature to compensate for line voltage variation. By adjusting the phase angle automatically with line voltage changes, constant power is maintained at the load. To use the line voltage compensation feature properly, the 24Vac transformer should be fed from the same mains as the load circuit to be controlled per the wiring diagram below. Line voltage compensation can be enabled or disabled via dip switch selections noted on front of this specification.

A separate control transformer is required for each APCSCR assembly.

See [User manual](#) for complete list of commands & wiring options.

### Voltage Limit Control Wiring Diagram (Potentiometer Input)

### Command Input



Command Input	1	2	3	5	
0-5V (Default)	Off	Off	Off	Off	
Potentiometer	Off	Off	Off	Off	
0-10V	Off	Off	On	Off	
4-20Ma	Off	On	Off	On	
1-5V	Off	Off	Off	On	
2-10V	Off	Off	On	On	
<b>Feature Enable</b>					
Line Voltage Comp Enable (Default)				4	6
None				Off	On
Soft Start				On	On
Soft Start & Line Voltage Comp Enabled				On	Off
Voltage Limit Option is a compensation feature that limits voltage delivered to load. Once set, voltage remains fixed even if line voltage fluctuates.					
Contact Anacon Power & Controls for applications assistance - 800-466-9080.					